

Notice of Allowability

Application No.

10/085,649

Examiner

Ryan M Flandro

Applicant(s)

WHITTON, ET AL.

Art Unit

3679

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address--

All claims being allowable, PROSECUTION ON THE MERITS IS (OR REMAINS) CLOSED in this application. If not included herewith (or previously mailed), a Notice of Allowance (PTOL-85) or other appropriate communication will be mailed in due course. **THIS NOTICE OF ALLOWABILITY IS NOT A GRANT OF PATENT RIGHTS.** This application is subject to withdrawal from issue at the initiative of the Office or upon petition by the applicant. See 37 CFR 1.313 and MPEP 1308.

1. ☒ This communication is responsive to applicant's amendment filed 4/27/04.
2. ☒ The allowed claim(s) is/are 1-3 and 7-18.
3. ☐ The drawings filed on _____ are accepted by the Examiner.
4. ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
 - a) ☐ All b) ☐ Some* c) ☐ None of the:
 1. ☐ Certified copies of the priority documents have been received.
 2. ☐ Certified copies of the priority documents have been received in Application No. _____.
 3. ☐ Copies of the certified copies of the priority documents have been received in this national stage application from the International Bureau (PCT Rule 17.2(a)).

* Certified copies not received: _____.

Applicant has THREE MONTHS FROM THE "MAILING DATE" of this communication to file a reply complying with the requirements noted below. Failure to timely comply will result in ABANDONMENT of this application.
THIS THREE-MONTH PERIOD IS NOT EXTENDABLE.

5. ☒ A SUBSTITUTE OATH OR DECLARATION must be submitted. Note the attached EXAMINER'S AMENDMENT or NOTICE OF INFORMAL PATENT APPLICATION (PTO-152) which gives reason(s) why the oath or declaration is deficient.
 6. ☒ CORRECTED DRAWINGS (as "replacement sheets") must be submitted.
 - (a) ☒ including changes required by the Notice of Draftsperson's Patent Drawing Review (PTO-948) attached
 - 1) ☐ hereto or 2) ☐ to Paper No./Mail Date 1/13/03.
 - (b) ☐ including changes required by the attached Examiner's Amendment / Comment or in the Office action of Paper No./Mail Date _____.
- Identifying indicia such as the application number (see 37 CFR 1.84(c)) should be written on the drawings in the front (not the back) of each sheet. Replacement sheet(s) should be labeled as such in the header according to 37 CFR 1.121(d).
7. ☐ DEPOSIT OF and/or INFORMATION about the deposit of BIOLOGICAL MATERIAL must be submitted. Note the attached Examiner's comment regarding REQUIREMENT FOR THE DEPOSIT OF BIOLOGICAL MATERIAL.

Attachment(s)

- | | |
|---|--|
| 1. <input checked="" type="checkbox"/> Notice of References Cited (PTO-892) | 5. <input type="checkbox"/> Notice of Informal Patent Application (PTO-152) |
| 2. <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948) | 6. <input checked="" type="checkbox"/> Interview Summary (PTO-413),
Paper No./Mail Date <u>20040805</u> . |
| 3. <input type="checkbox"/> Information Disclosure Statements (PTO-1449 or PTO/SB/08),
Paper No./Mail Date _____ | 7. <input checked="" type="checkbox"/> Examiner's Amendment/Comment |
| 4. <input type="checkbox"/> Examiner's Comment Regarding Requirement for Deposit
of Biological Material | 8. <input checked="" type="checkbox"/> Examiner's Statement of Reasons for Allowance |
| | 9. <input type="checkbox"/> Other _____ |

EXAMINER'S AMENDMENT

1. An examiner's amendment to the record appears below. Should the changes and/or additions be unacceptable to applicant, an amendment may be filed as provided by 37 CFR 1.312. To ensure consideration of such an amendment, it MUST be submitted no later than the payment of the issue fee.

Authorization for this examiner's amendment was given in a telephone interview with Glenn Massina on 05 August 2004.

The application has been amended as follows:

- **Claim 1 has been amended to read:**

1. A shaft coupling assembly comprising:
a coupling element including a shaft-receiving slot having a bottom surface and a bolt receiving through bore extending through the coupling element perpendicular to the shaft receiving slot;
a retaining bolt extendable through the coupling element bolt receiving through bore such that the retaining bolt extends at least partially into the shaft-receiving slot;
a A shaft configured for interconnection with a said coupling element, the shaft comprising:
an axial shaft body having upper and lower surfaces and terminating in a forward end;
a bolt receiving recess in the upper shaft surface adjacent the forward shaft end;
and

the shaft body forward end having a substantially planar surface except for at least one projection extending axially from the shaft forward end, the at least one projection having an upper surface contiguous with the upper shaft surface and positioned completely above a horizontal midplane of the shaft body.

- **Claim 9 has been amended to read:**

9. A shaft coupling assembly comprising:

a coupling element including a shaft-receiving slot having a bottom surface and a bolt receiving through bore extending through the coupling element perpendicular to the shaft-receiving slot, a portion of said bolt receiving through bore closest to the slot bottom surface being at a distance X from the slot bottom surface;

a retaining bolt extendable through the coupling element bolt retaining through bore such that the retaining bolt extends at least partially into the shaft-receiving slot with a portion of the bolt at the distance X from the slot bottom surface;

an axial shaft body having upper and lower surfaces and terminating in a forward end configured to be inserted in the shaft-receiving slot;

a bolt receiving recess in the upper shaft surface adjacent the forward shaft end and configured to receive and retain the retaining bolt after the shaft forward end is inserted in the shaft-receiving slot; and

at least one projection extending axially from the shaft forward end, the at least one projection having an upper surface contiguous with the upper shaft surface, the

projection upper surface and being spaced from the shaft lower surface a distance greater than X.

- **Claim 12 has been amended to read:**

12. A shaft coupling assembly comprising:

a coupling element including a shaft-receiving slot having a bottom surface and a bolt receiving through bore extending through the coupling element perpendicular to the shaft-receiving slot, a portion of said bolt receiving through bore closest to the slot

bottom surface being at a distance X from the slot bottom surface;

a retaining bolt extendable through the coupling element bolt retaining through bore such that the retaining bolt extends at least partially into the shaft-receiving slot with a portion of the bolt at the distance X from the slot bottom surface;

an axial shaft body having upper and lower surfaces and terminating in a forward end configured to be inserted in the shaft-receiving slot;

a bolt receiving recess in the upper shaft surface adjacent the forward shaft end and configured to receive and retain the retaining bolt after the shaft forward end is inserted in the shaft-receiving slot; and

at least one projection extending from the shaft forward end, the at least one projection having an upper surface contiguous with the upper shaft surface, the projection upper surface and being spaced from the shaft lower surface a distance greater than X.

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- **Claim 13 has been amended to read:**

13. A shaft coupling assembly comprising:

a coupling element including a shaft-receiving slot having a bottom surface and a bolt receiving through bore extending through the coupling element perpendicular to the shaft-receiving slot, a portion of said bolt receiving through bore closest to the slot bottom surface being at a distance X from the slot bottom surface;

a retaining bolt extendable through the coupling element bolt retaining through bore such that the retaining bolt extends at least partially into the shaft-receiving slot with a portion of the bolt at the distance X from the slot bottom surface;

an axial shaft body having upper and lower surfaces and terminating in a forward end configured to be inserted in the shaft-receiving slot;

a bolt receiving recess in the upper shaft surface adjacent the forward shaft end and configured to receive and retain the retaining bolt after the shaft forward end is inserted in the shaft-receiving slot; and

at least one projection extending axially from the shaft forward end, the at least one projection having an upper surface contiguous with the upper shaft surface, the projection upper surface ~~and~~ being spaced from the shaft lower surface a distance greater than X; and

a second projection extending from the shaft forward end adjacent the shaft lower surface, the second projection substantially opposed to the projection extending adjacent the shaft upper surface with an open area defined therebetween.

- **Claim 16 has been amended to read:**

16. The shaft coupling assembly according to claim 13 wherein the bolt receiving through bore is spaced a given distance from an opening into the shaft-receiving slot and ~~the open area has a depth~~ the first or second projection has a longitudinal length equal to or greater than the given through bore distance.

EXAMINER'S STATEMENT OF REASONS FOR ALLOWANCE

2. The following is an examiner's statement of reasons for allowance:
 - a. Claim 1. The prior art, either alone or in combination, fails to disclose or teach a shaft coupling assembly including a shaft having a projection extending axially from the forward end that is contiguous with the shaft upper surface and is positioned completely above a horizontal midplane of the shaft body. Claims 2, 3, 7 and 8 depend therefrom.
 - b. Claims 9 and 12. The prior art, either alone or in combination, fails to disclose the limitations recited in the final paragraph of each claim. Claims 10 and 11 depend from claim 9.
 - c. Claim 13. The prior art, either alone or in combination, fails to disclose the limitations recited in the final two paragraphs of the claim. Claims 14-18 depend therefrom, claim 16 being amended as set forth above.

Any comments considered necessary by applicant must be submitted no later than the payment of the issue fee and, to avoid processing delays, should preferably accompany the issue

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fee. Such submissions should be clearly labeled "Comments on Statement of Reasons for Allowance."

Oath/Declaration

3. Applicant is now required to submit a substitute declaration or oath to correct the following deficiencies: *the Oath/Declaration received 5/6/02 is not signed by all named inventors*. The substitute oath or declaration must be filed within the THREE MONTH shortened statutory period set for reply in the "Notice of Allowability" (PTO-37). Extensions of time may NOT be obtained under the provisions of 37 CFR 1.136. Failure to timely file the substitute declaration (or oath) will result in **ABANDONMENT** of the application. The transmittal letter accompanying the declaration (or oath) should indicate the date of the "Notice of Allowance" (PTOL-85) and the application number in the upper right hand corner.

Drawings/Specification

4. Applicant's arguments regarding the replacement drawings submitted 14 October 2003 are persuasive, as are Applicant's arguments regarding the objections to the specification. Accordingly, these objections are withdrawn. Note, however, that the drawings are acceptable subject to correction of the informalities indicated on the "Notice of Draftsperson's Patent Drawing Review," PTO-948 mailed out 13 January 2003. In order to avoid abandonment of this application, correction is required in reply to the Office action. The correction will not be held in abeyance.

Conclusion

5. The prior art made of record and not relied upon is considered pertinent to applicant's disclosure. The following patents are cited to further show the state of the art with respect to shaft coupling assemblies and shafts generally having projections extending from a forward end:

U.S. Patent 5,324,235 to Tomii et al (see figures 1-5 – showing shaft with axial projection at forward end)

U.S. Patent 4,861,240 to Marioni et al. (see figure 6 – shaft with forward end projection)

U.S. Patent 3,485,062 to Blake (see figure 4 – element 13)

U.S. Patent 2,901,842 to Sensinig (see figures 1-4)

U.S. Patent 2,678,460 to Oishei (see figure 4 – shaft 12')

U.S. Patent 2,499,490 to Good (see figure 1 – elements 1 or 2)

U.S. Patent 2,007,513 to Westburgh (see figure 3)

U.S. Patent 1,684,919 to Keyser (see figures 2 and 4 – shaft 1)

U.S. Patent 1,602,691 to McCaskey (see figure 2)

U.S. Patent 1,258,233 to McCaskey (see figure 4)

6. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Ryan M Flandro whose telephone number is (703) 305-6952. The examiner can normally be reached on 8:30am - 5:30pm Mon-Fri.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Daniel P. Stodola can be reached on (703) 308-2686. The fax phone number for the organization where this application or proceeding is assigned is 703-872-9306.

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Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

RMF

August 5, 2004



JOHN R. COTTINGHAM
PRIMARY EXAMINER